

COXCOM, INC., d/b/a COX COMMUNICATIONS NEW ENGLAND, Plaintiff, Appellee, v. JON CHAFFEE, individually and d/b/a Electronic Imports and Chaffee International, Defendant, Appellant. AMY CHAFFEE, individually and d/b/a Electronic Imports; RAMALDA BOU, individually and d/b/a Electronic Imports, Defendants. COXCOM, INC., d/b/a COX COMMUNICATIONS NEW ENGLAND, Plaintiff, Appellee, v. AMY CHAFFEE, individually and d/b/a Electronic Imports; RAMALDA BOU, individually and d/b/a Electronic Imports, Defendants, Appellants. JON CHAFFEE, individually and d/b/a Electronic Imports and Chaffee International, Defendant.

No. 07-2030, No. 07-2031

UNITED STATES COURT OF APPEALS FOR THE FIRST CIRCUIT

536 F.3d 101; 2008 U.S. App. LEXIS 16485; 87 U.S.P.Q.2D (BNA) 1667; Copy. L. Rep. (CCH) P29,602; 45 Comm. Reg. (P & F) 870

August 4, 2008, Decided

PRIOR HISTORY: [1]**

APPEALS FROM THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF RHODE ISLAND. Hon. William E. Smith, U.S. District Judge.
Coxcom, Inc. v. Chaffee, 2007 U.S. Dist. LEXIS 39851 (D.R.I., May 30, 2007)

COUNSEL: Keven A. McKenna, for appellant, Jon Chaffee.

James A. Currier on brief for appellants, Amy Chaffee and Ramalda Bou.

Shaun K. Hogan, with whom Lefkowitz, Hogan & Cassell, LLP was on brief, for appellee.

JUDGES: Before Torruella, Lipez, and Howard, Circuit Judges.

OPINION BY: HOWARD

OPINION

[*104] **HOWARD, Circuit Judge.** Appellants Jon Chaffee, Amy Chaffee, and Ramalda Bou appeal from the district court's decision granting summary judgment and damages to appellee CoxCom, Inc., after finding that appellants violated the Cable Communications Policy Act of 1984, 47 U.S.C. β 553(a)(1) ("Section 553"), and the Digital Millennium Copyright Act ("DMCA"), 17 U.S.C. β 1201. Appellants argue that CoxCom lacked standing to bring the lawsuit, and that summary judgment was improvidently granted. Appellants further contend that, summary judgment notwithstanding, they were entitled to a jury trial on damages, and they also dispute the imposition of a permanent injunction. We affirm.

I.

A. Background Facts

CoxCom offers cable television services to subscribers in Rhode Island, Massachusetts, and Connecticut. CoxCom leases **[**2]** set-top electronic decoding equipment (commonly known as "cable boxes") to its subscribers to descramble incoming signals for viewing. The cable box also transmits certain information from subscribers back to CoxCom, including billing information associated with the purchase of pay-per-view programming.¹

1 Other cable services providers also operate in this fashion.

At issue here is a digital cable filter, a device that can affect those return transmissions. These filters block low-frequency signals, typically those below 50mhz. Normally, after a subscriber purchases and views pay-per-view programming, the subscriber's cable box sends a transmission to the cable company with data on the purchase. This transmission is emitted at a low frequency, 8.096mhz. With the filter installed, pay-per-view purchases of up to \$ 300 would not register on the cable company's central computer. After accumulating \$ 300 of unbilled charges, the cable box would "lock out" additional pay-per-view purchases. The filters are not illegal, and they also have innocuous uses, such as allowing cable television subscribers to enhance viewing quality by filtering out interference from FM radio broadcast towers, **[**3]** shortwave radios, and home appliances.

Appellants,² residents of Rhode Island at the relevant time, sold the filters at computer trade shows, including in Rhode Island and Connecticut. Appellants sold the filters with an instruction sheet stating that the filter was designed to "test" the performance of pay-per-view billing systems and further providing:

[*105] By having this filter connected to your digital cable box any and all programming that can be received by pressing the 'Buy,'

'Order' or 'Purchase' button on your remote will be viewed without the billing information reaching the cable company. We ARE NOT suggesting or implying that anyone who purchases this tool participate in any theft of cable programming [and] therefore, it is imperative that you notify your cable company of any programs that you view while using this filter so they will know to bill you accordingly.

....

A digital cable filter will . . . block out pay per view and movie order charges from your cable company, giving you free pay per view. Therefore, it is mandatory that you notify your cable company of the extra orders.³

2 Jon and Amy Chaffee, a married couple, did business as "Electronic Imports" and "Chaffee **[**4]** International." Jon Chaffee engaged in correspondence and technical support, sometimes under a pseudonym, in addition to selling some of the cable filters. Amy Chaffee sold cable filters. Ramalda Bou, employed by the Chaffees, also sold cable filters. Appellants have filed two sets of briefs on appeal: Amy Chaffee and Bou together, as they are represented jointly, and Jon Chaffee, as he has his own representation. The nature of the questions on appeal do not require us to address the claims separately.

3 The instructions to operate the cable filters are not specific to a particular cable company's technology or equipment.

Appellants made statements to their customers in the course of selling the filters that

were recorded by CoxCom's investigators. Amy Chaffee stated that the filters actually worked, and that they worked specifically on CoxCom's equipment. She also warned a prospective customer that the cable box would only hold a certain amount of unbilled pay-per-view charges, which she estimated at \$ 500.

Appellants also provided their contact information to filter purchasers for customer support and service. Jon Chaffee made the following statements in email correspondence with filter [**5] purchasers: "It is only for pay per view, not HBO and Showtime. Here is [sic] the directions;" "The filter only works for pay for views . . . It doesn't work for HBO, Showtime and other premium channels. You must reset the box before removing or you will be charged;" "Here is [sic] the instructions for the cable filter. Sorry it only works for pay per view."

CoxCom's undercover investigators purchased eighteen digital cable filters from appellants at computer trade shows in Connecticut and Rhode Island and in a separate sale arranged over the telephone and consummated in a parking lot in Rhode Island. CoxCom subsequently commenced this action in district court, alleging that the filter sales violated *Section 553* and the DMCA.

B. Procedural History

Immediately after filing its complaint, CoxCom moved ex parte for a temporary restraining order ("TRO") seeking to seize appellants' business records and computers and to enjoin appellants from selling, transferring, storing or distributing digital cable filters pending the resolution of the matter. The court granted both requests, and the parties then entered into a preliminary injunction on consent, under the terms of the TRO.

Appellants' answer [**6] requested a jury trial. ⁴

4 Appellants counterclaimed for intentional infliction of emotional distress, but that claim was dismissed and is not at issue on appeal.

After the close of discovery, CoxCom moved for summary judgment. Appellants motion objected and cross-moved for summary judgment. The magistrate judge recommended that CoxCom's motion be granted and that appellants' be denied. After de novo review, the district court adopted the Report and Recommendation in full over several objections by appellants.

With appellants' liability established, the district court referred the matter to the magistrate judge for a Report and Recommendation [**106] on damages and costs. Present at the bench trial on damages were Jon Chaffee, appearing pro se, and counsel for Amy Chaffee and Ramalda Bou. Neither Jon Chaffee nor counsel presented any evidence on damages, although each cross-examined CoxCom's witnesses. ⁵

5 Jon Chaffee apparently tried to submit certain exhibits but failed to introduce them into evidence at the bench trial. Both CoxCom and Jon Chaffee submitted post-hearing briefs, but both briefs were rejected as untimely.

The magistrate judge recommended that CoxCom be awarded statutory and enhanced [**7] damages under *Section 553* in the amount of \$ 35,000, and statutory and enhanced damages under the DMCA in the amount of \$ 105,000, jointly and severally against appellants Jon and Amy Chaffee. Further, the magistrate judge recommended that CoxCom be awarded attorneys' fees and costs of \$ 196,586.11, also jointly and severally against appellants Jon and Amy Chaffee. As Ramalda Bou was present for a limited number of filter sales and was an employee of the Chaffees, she was found liable for \$ 3,300 under *Section 553*, and for \$ 2,200 under the DMCA. Finally, the

magistrate judge recommended that all appellants be permanently enjoined from future possession, sale, or distribution of digital cable filters. The district court accepted the Report and Recommendation in full, over objections submitted by appellants.

On appeal, appellants argue first that the district court had no jurisdiction over the matter because CoxCom lacked standing to sue. They next argue that summary judgment was improperly granted to CoxCom on the questions of liability under *Section 553* and under the DMCA. Finally, appellants argue that they were entitled to a jury trial on damages, and that the permanent injunction [**8] was improperly granted.⁶

6 The table of contents of Jon Chaffee's appellate brief refers to an argument that the district court erred in allowing his home to be searched, items to be seized, and his assets to be frozen. The brief itself contains no actual argument and we will treat this issue as waived. "[I]ssues adverted to in a perfunctory manner, unaccompanied by some effort at developed argumentation, are deemed waived." *United States v. Zannino*, 895 F.2d 1, 17 (1st Cir. 1990).

II.

A. Article III Standing

"The requisite elements of Article III standing are well established: 'A plaintiff must allege personal injury fairly traceable to the defendant's allegedly unlawful conduct and likely to be redressed by the requested relief.'" *Hein v. Freedom From Religion Found., Inc.*, 127 S. Ct. 2553, 2562, 168 L. Ed. 2d 424 (2007) (quoting *Allen v. Wright*, 468 U.S. 737, 751, 104 S. Ct. 3315, 82 L. Ed. 2d 556 (1984)).

To establish constitutional standing at the summary judgment stage, "a plaintiff cannot rest on mere allegations, but must set forth by

affidavit or other evidence specific facts which for purposes of the summary judgment motion will be taken to be true." *Libertad v. Welch*, 53 F.3d 428, 436 (1st Cir. 1995).

The Supreme Court in *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560, 112 S. Ct. 2130, 119 L. Ed. 2d 351 (1992), [**9] described an injury-in-fact as "an invasion of a legally protected interest which is (a) concrete and particularized . . . and (b) actual or imminent, not conjectural or hypothetical." *Id.*, 504 U.S. at 560 (internal citations and quotation marks omitted). See also *Sullivan v. City of Augusta*, 511 F.3d 16, 25 (1st Cir. 2007); *United States v. [**107] AVX Corp.*, 962 F.2d 108, 113-14 (1st Cir. 1992).

A particularized injury is one that "affect[s] the plaintiff in a personal and individual way." *Lujan*, 504 U.S. at 560 n.1. We have said that plaintiffs seeking to demonstrate injury-in-fact "need not establish a particularly damaging injury; they need only show that they were directly affected by the conduct complained of, and therefore have a personal stake in the suit." *Libertad*, 53 F.3d at 439. In *Bennett v. Spear*, 520 U.S. 154, 167-68, 117 S. Ct. 1154, 137 L. Ed. 2d 281 (1997), the Supreme Court held that the petitioners, non-exclusive recipients of irrigation water, demonstrated an injury-in-fact sufficient to survive a motion to dismiss based on allegations that the *aggregate* amount of water would be reduced through government action. The Court reached this conclusion over the government's contention that less water in the aggregate [**10] did not necessarily amount to less water for the specific petitioners.

The "actual or imminent" requirement means "not conjectural or hypothetical." *Lujan*, 504 U.S. at 560 (internal quotation marks and citation omitted). In *Adams v. Watson*, 10 F.3d 915, 918 (1st Cir. 1993), we found injury-in-fact where plaintiffs, milk producers, alleged that a decision by the state agricultural board would set off a "chain of economic events

[that] will result in appellants' loss of future income, profits, and business opportunities." *Id.* at 919. While the injury would depend on the chain of events unfolding as plaintiffs alleged, we held that plaintiffs had pled "particularized future economic injury which, though latent, nonetheless qualifies as 'imminent.'" *Id.* at 920-21.

Appellants argue that CoxCom lacks constitutional standing because it was not injured.⁷ They point to *DirectTV, Inc. v. Treworgy*, 373 F.3d 1124, 1127 (11th Cir. 2004), where a defendant was sued under the Wiretap Act, 18 U.S.C. § 2512(1)(b), for possessing an unauthorized device. There, the court expressed concern about whether the plaintiff had shown the requisite injury-in-fact, because there were no allegations that the defendant [**11] actually used or intended to use the device to plaintiff's detriment. Here, however, CoxCom presented evidence that appellants sold filters within CoxCom's service area that were *capable* of bypassing CoxCom's [*108] pay-per-view billing mechanism. Appellants' own statements and their correspondence with customers demonstrated that appellants had *specific knowledge* that buyers of those filters both intended to use and actually did use the filters to bypass the pay-per-view billing mechanism of the cable company to which the buyer subscribed.

⁷ The question of constitutional standing is not the same as establishing CoxCom's standing to sue as an "aggrieved person" under Section 553 or as a "person injured" under the DMCA. Article III standing is an independent requirement. *See Raines v. Byrd*, 521 U.S. 811, 820, 117 S. Ct. 2312, 138 L. Ed. 2d 849 (1997) ("Congress cannot erase Article III's standing requirements by statutorily granting the right to sue to a plaintiff who would not otherwise have standing."). Appellants do not make a separate

standing argument based on these phrases in the statutes.

From this evidence, we conclude that CoxCom has met both the "concrete and particularized" and "actual or imminent" requirements for [**12] constitutional standing. CoxCom can show a concrete injury in that it is personally affected by the sale of cable filters. Like the allegations of water reduction in the aggregate plead by petitioners in *Bennett*, CoxCom has introduced sufficient evidence of harm to cable service providers like itself with a pay-per-view billing mechanism susceptible to interference from digital cable filters. We may conclude from this that CoxCom itself has been or will be injured from the loss of remuneration attributable to subscribers viewing pay-per-view programming without paying for it. CoxCom can also show imminent injury like the plaintiff in *Adams*, as the evidence of appellants' sale of filters represents "particularized future economic injury." *Id.*, 10 F.3d at 920-21. Even though appellants are correct that there is no showing that any CoxCom subscriber actually used one of the filters purchased from appellants to cause financial harm to CoxCom, the chain of events that can result from the sale of filters in CoxCom's service area clearly encompasses a loss of remuneration to CoxCom.

B. Summary Judgment Ruling

We review the district court's summary judgment rulings de novo, viewing the facts [**13] in the light most favorable to appellants. *Perry v. Wolaver*, 506 F.3d 48, 53 (1st Cir. 2007).⁸ Summary judgment is appropriate where no genuine issue of material fact exists and the movant is entitled to judgment as a matter of law. *Fed. R. Civ. P.* 56(c).

⁸ Appellants attack the magistrate judge's statement that he had "performed independent research," contending that this was error given the summary judgment posture of the litigation. We inter-

pret this statement to indicate only that the magistrate judge performed further legal research, as it does not appear that he went beyond the scope of the summary judgment record.

1. *Section 553*

Section 553 of the Cable Communications Policy Act was enacted to reflect Congress's concern that "theft of cable service poses a major threat to the economic viability of cable operators and cable programmers, and creates unfair burdens on cable subscribers who are forced to subsidize the benefits that other individuals are getting by receiving cable service without paying for it." H.R. Rep. No. 98-934, at 83 (1984), reprinted in 1984 U.S.C.C.A.N. 4655, 4720; see also *Charter Commc'n Entm't I, DST v. Burdulis*, 460 F.3d 168, 177 (1st Cir. 2006). The relevant **[**14]** statutory language provides:

(a) Unauthorized interception or receipt or assistance in intercepting or receiving service; "assist in intercepting or receiving" defined

(1) No person shall intercept or receive or assist in intercepting or receiving any communications service offered over a cable system, unless specifically authorized to do so by a cable operator or as may otherwise be specifically authorized by law.

(2) For the purpose of this section, the term "assist in intercepting or receiving" shall include the manufacture or distribution of equipment *intended* by the manufacturer or distributor (as the case may be) for *unauthorized reception* of any communications service offered over a cable system in violation of subparagraph (1).

47 U.S.C. β 553(a) (emphasis added).

Section 553 liability is thus not limited to situations where cable services have actually been intercepted; liability exists where a plaintiff proves that a defendant *intended* to assist in the unauthorized reception of cable services. See *United States v. Beale*, 681 F.Supp. 74, 75 (D. Me. 1988) ("[P]roof of actual interception or reception is unnecessary, provided there has been proof of willful manufacture or distribution **[**15]** of equipment intended for unauthorized use in the interception or reception of a cable communications service."); **[*109]** see also *Time Warner Entm't/ Advance-Newhouse P'ship v. Worldwide Elecs., L.C.*, 50 F. Supp. 2d 1288, 1298 (S.D. Fla. 1999) ("*Section 553* only requires intent to assist in the unauthorized interception of communications offered over a cable system . . . and proof of actual interception by purchasers is not required.").

Appellants specifically challenge two aspects of the district court's determination that they violated *Section 553*: first, they contend that the filters were not designed and used for unauthorized *reception* of cable programming, and second, that they did not *intend* that the filters be used for that purpose. 47 U.S.C. β 553(a)(2).

Appellants' first argument focuses on the word "reception," contending that because filters affect only the outgoing (and not the incoming) transmissions between a subscriber's cable box and the cable company, filters therefore do not affect "reception" and their distribution or use is not prohibited by *section 553(a)(2)*.⁹

9 Appellants do not challenge the determination that CoxCom broadcasts "communication services" within the meaning **[**16]** of the statute.

Appellants' transparent attempt at wordplay fails. A subscriber using a filter to view pay-

per-view "receives" programming. That programming is unauthorized, because the subscriber has interfered with the cable company's billing mechanism in contravention of the subscriber's contract with the cable company. The filter itself may not act upon the reception of cable programming, but the record is clear that a filter is "equipment" that "assists" a subscriber in "unauthorized reception" of pay-per-view programming, in violation of *Section 553*.

Appellants' next argument is that they did not intend the filters to be used in contravention of *Section 553*. We reject this argument as well.

For *Section 553* purposes, "intent" is understood as "specific knowledge" of the planned illegal use. *Intermedia Partners Se. Gen. P'ship v. QB Distrib. LLC*, 999 F. Supp. 1274, 1280-81 (D. Minn. 1998). Appellants' specific knowledge of the planned illegal use is apparent from the summary judgment record for at least two reasons. First, the instructions for filter operation provided to buyers suggest that appellants knew of the planned illegal use. In *Storer Communs v. Mogel*, 625 F. Supp. 1194, 1198 (S.D. Fla. 1985), **[**17]** the provision of instructions for using particular equipment accompanying sale of that equipment, "with the specific knowledge and intent that such equipment would be used, and in fact was used to intercept [cable] services without payment therefor," was held to be "precisely the type of conduct that Congress sought to proscribe when it enacted *Section 553*."

Second, the filters here actually did what appellants advertised: they blocked pay-per-view billing data. *See Time Warner*, 50 F. Supp. 2d at 1293-94 (best evidence of defendants' intent to assist in intercepting cable service is the nature of the devices sold). Based on this evidence, we agree with the district court that appellants distributed equipment intended for unauthorized reception of cable services, in violation of *Section 553(a)(2)*.¹⁰

10 Appellants are prevented by waiver from pressing any further arguments as to the granting of summary judgment on the *Section 553* issue. Much of appellants' briefing to us encompasses arguments that were not made before the district court. This we cannot allow; any argument not made before the district court will not be reviewed on appeal. *See Iverson v. City of Boston*, 452 F.3d 94, 102 (1st Cir. 2006) **[**18]** ("[T]heories not squarely and timely raised in the trial court cannot be pursued for the first time on appeal.").

[*110] 2. DMCA

Appellants next argue that the district court improperly granted summary judgment to CoxCom on the DMCA claims. The DMCA provides in relevant part:

No person shall manufacture, import, offer to the public, provide, or otherwise traffic in any technology, product, service, device, component, or part thereof, that-

(A) is primarily designed or produced for the purpose of circumventing a technological measure that effectively controls access to a work protected under this title;

(B) has only limited commercially significant purpose or use other than to circumvent a technological measure that effectively controls access to a work protected under this title; or

(C) is marketed by that person or another acting in concert with that person with that person's knowledge for use in circumventing a technological measure that effectively controls access to a work protected under this title.

17 U.S.C. β 1201(a)(2). Appellants argue that they are not liable under the DMCA because their filters did not "circumvent" technological measures.

We have a dearth of case law on this statute, so **[**19]** we turn outside of our circuit for guidance. To establish liability under the DMCA, a plaintiff must establish two elements: "(1) defendant trafficked in a technology; and (2) the technology was primarily designed or produced to circumvent conditional access controls to protected works, or has limited commercially significant use other than such circumvention." *DirectTV Inc. v. Little*, 2004 U.S. Dist. LEXIS 16350, 2004 WL 1811153, *6 (N.D. Cal. Aug. 12, 2004) (citing *321 Studios v. Metro Goldwyn Mayer Studios, Inc.*, 307 F.Supp. 2d 1085, 1094-99 (N.D. Cal. 2004)). "To 'circumvent a technological measure' means to descramble a scrambled work, to decrypt an encrypted work, or otherwise to avoid, bypass, remove, deactivate, or impair a technological measure, without the authority of the copyright owner" 17 U.S.C. β 1201(a)(3)(A). The technological measure here, as appellants acknowledge, is CoxCom's pay-per-view delivery and billing system that scrambles pay-per-view programming unless subscribers choose to purchase and view it. See also *CSC Holdings, Inc. v. Kelly*, 374 F. Supp. 2d 303, 303 (E.D.N.Y. 2005) (encoding and scrambling of pay-per-view and premium channels is a "technological measure"). A digital cable **[**20]** filter allows subscribers to "avoid" or "bypass" that technological measure. Given the factual record, we have little trouble concluding that the district court properly granted summary judgment to CoxCom as to appellants' liability under the DMCA. ¹¹

¹¹ Appellants make several other DMCA-related arguments; they are waived as not argued below. *Iverson*, 452 F.3d at 102.

C. Jury Trial Waiver

Appellants argue that because they requested a jury trial in their answer, they were entitled under the *Seventh Amendment* to a jury trial on damages.

Fed. R. Civ. P. 39(a) provides that when a jury trial has been demanded, the trial on all issues must be conducted by a jury, unless the parties stipulate to a nonjury trial either through a motion or on the record. Nevertheless, the jury trial right can be waived, see *Goya Foods, Inc. v. Unanue*, 233 F.3d 38, 48 (1st Cir. 2000), although we have noted that "the right to a jury trial is constitutionally protected and casual waivers are not to be presumed." **[*111]** *Garcia-Ayala v. Lederle Parenterals, Inc.*, 212 F.3d 638, 645 (1st Cir. 2000).

The case law suggests that a party's participation in a bench trial without objection constitutes a waiver of a jury trial right. **[**21]** See *United States v. 1966 Beechcraft Aircraft Model King Air*, 777 F.2d 947, 951 (4th Cir. 1985) (jury waiver found where parties "fully and vigorously participated in the bench trial, making no mention of their early jury demand"); see also *Royal American Managers, Inc. v. IRC Holding Corp.*, 885 F.2d 1011, 1018 (2d Cir. 1989) (where defendant acquiesced to specific issue being decided by judge rather than sent to jury, "participation in a bench trial without objection constitutes waiver of the jury trial right."); *Reboy v. Cozzi Iron & Metal, Inc.*, 9 F.3d 1303, 1306 (7th Cir. 1993) (same).

Here, despite their original request, appellants did not specifically object to the lack of a jury, and their conduct indicates active participation both leading up to and during the bench trial. In an unsuccessful attempt to disqualify the magistrate judge in favor of allowing the district court to decide the damages issue, the appellants' moving papers said nothing about a jury trial. They argued only that not all parties

had agreed to having a magistrate judge decide the issue. Jon Chaffee, proceeding pro se, and counsel for Amy Chaffee and Ramalda Bou each cross-examined CoxCom's witnesses at [**22] the bench trial (although they did not present any evidence). Appellants' conduct constitutes waiver.

Jon Chaffee's pro se status does not compel a different result. We have not specifically addressed a situation where a jury trial was demanded but a pro se party's later conduct was held to waive that demand.¹² The Seventh Circuit has held that in "exceptional circumstances," a pro se litigant will not be subject to jury waiver. See *Lovelace v. Dall*, 820 F.2d 223, 229 n.4 (7th Cir. 1987). We do not think this represents such an "exceptional circumstance." On the contrary, we see here instead a situation wherein the losing party reasserts a right to trial by jury after a bench trial, thus attempting a second bite at the apple. See, e.g., *Hanlon v. Providence College*, 615 F.2d 535, 539 (1st Cir. 1980). This consideration applies against pro se parties. See *Lovelace*, 820 F.2d at 228 ("[N]ot applying the waiver rule to uncounseled opponents would create the situation where only one party—the pro se party—would have the opportunity to overturn the trial result in the event of an adverse decision."). Thus, despite Jon Chaffee's pro se status, we find that appellants waived their jury trial [**23] rights.

12 In *Rowlett v. Anheuser-Busch, Inc.*, 832 F.2d 194, 200 (1st Cir. 1987) (abrogated on other grounds), a pro se litigant failed to make an initial jury demand. Later, when represented, he actively sought a jury trial and filed a *Fed. R. Civ. P.* 39(b) motion to that effect. We granted a jury trial despite the failure to initially demand one, in a matter that we said "was so obviously a jury case." *Id.*

D. Permanent Injunction

We review a district court's issuance of a permanent injunction for an abuse of discretion. *eBay Inc. v. MercExchange, L.L.C.*, 547 U.S. 388, 391, 126 S. Ct. 1837, 164 L. Ed. 2d 641 (2006). We are not bound by the district court's rationale and may affirm based on any valid reason supported by the record. *Ross-Simons of Warwick, Inc. v. Baccarat, Inc.*, 217 F.3d 8, 11 (1st Cir. 2000).

Appellants argue that the court abused its discretion in granting the permanent injunction forbidding appellants' future possession, sale, or distribution of digital cable filters, challenging the magistrate [**112] judge's brief statement that the injunction was proper "in view of . . . the record in this case." We disagree.

A plaintiff seeking a permanent injunction is traditionally required to satisfy a four-factor test: "(1) [**24] that it has suffered an irreparable injury; (2) that remedies available at law, such as monetary damages, are inadequate to compensate for that injury; (3) that, considering the balance of hardships between the plaintiff and defendant, a remedy in equity is warranted; and (4) that the public interest would not be disserved by a permanent injunction." *eBay Inc.*, 547 U.S. at 391; see also *Esso Standard Oil Co. v. Lopez-Freytes*, 522 F.3d 136, 148 (1st Cir. 2008).

We are satisfied that the findings of the magistrate judge and the district court are sufficient to support the permanent injunction. The first two of the four factors are satisfied on a showing of "substantial injury that is not accurately measurable or adequately compensable by money damages." *Ross-Simons of Warwick, Inc.*, 217 F.3d at 13 (citation and internal quotation marks omitted). As noted earlier, a cable box outfitted with a filter could prevent up to \$ 300 in pay-per-view charges from reaching CoxCom, a substantial injury given that appellants allegedly sold thousands of filters. That injury is also difficult to accurately measure. Appellants did not maintain detailed sales records, and because the effect of the filter

[**25] is to conceal the unauthorized receptions, CoxCom was thereby prevented from accurately determining its losses. The third factor, balancing the hardships, clearly tilts in favor of granting the injunction because the hardship to appellants from being unable to possess, sell or distribute digital cable filters is slight. Finally, the fourth factor, the public interest, further supports the issuance of the injunction: the public has an interest in the enforcement of federal statutes. *See Sec. Indus. Ass'n v. Bd. of Governors of Fed. Reserve Sys.*, 628 F. Supp. 1438, 1443 (D.D.C. 1986).

Moreover, appellants' argument about the brevity of the magistrate judge's statement is misleading. The district court's earlier findings in support of the TRO and preliminary injunction, combined with CoxCom's success on the merits, supports the permanent injunction.¹³ *See Largess v. Sup. Jud. Ct. for State of Mass.*, 373 F.3d 219, 224 (1st Cir. 2004).¹⁴

13 In granting the preliminary injunction, the court specifically found that CoxCom had demonstrated a likelihood of success on the merits, and that absent the court's grant of relief, CoxCom would suffer "substantial and ongoing irreparable harm in the [**26] form of, in-

ter alia, lost profits, lost opportunities, and a diminishment in the value of its goodwill, as well as other irreparable harm, resulting from defendants' digital filter sales." The court went on to say that "the resulting harm to plaintiff in not granting this relief is far greater than any injury this relief will cause to the defendant; and, [] the relief sought would promote the public interest."

14 While we do not reach the question here, we note that where Congress has specifically authorized injunctive relief, as is the case with *Section 553* and the DMCA, it may not be necessary to satisfy the four-factor test. *See United States v. Mass. Water Res. Auth.*, 256 F.3d 36, 51 n.5 (1st Cir. 2001) ("At least with respect to some statutory injunction provisions . . . when Congress decides to make available the remedy of injunction for violations of a statute's substantive provisions, irreparable injury is presumed to flow from such violations.").

III.

For the reasons explained above, we *affirm* the district court in all respects.